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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------|------------------|
| 09/906,999 | 07/16/2001 | Robert C. Martin | P137-US | 6480 |
| 27521 | 7590 | 12/27/2004 | EXAMINER | |
| KEN BURRASTON KIRTON & MCCONKIE PO BOX 45120 SALT LAKE CITY, UT 84145-0120 | | | ROBERT, RUSSELL MARC | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2829 | |

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/906,999

Applicant(s)

MARTIN ET AL.

Examiner

Russell M Kobert

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 13-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☒ Claim(s) 5 and 7-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Applicant's arguments with respect to claims 1-4 and 6 have been considered but are moot in view of the new ground(s) of rejection.

2. Claims 1 and 7 are objected to for the following reasons:

Claim 1 recites the limitation "the pad" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the plurality of *microelectronic* contact structures" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

3. Claim 8 contains a grammatical error in line 5. The word "disposes" appears to be misspelled.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Farnworth et al (5686318).

Farnworth et al anticipates (Figures 1-4) a tip structure for a contact element for contacting a semiconductor device (18), comprising:

a contact tip (16) disposed on a surface of the pad (17) and having a distal end protruding above the surface of the pad;

an alignment mark (15 shown in Figure 4) fixed relative to the pad and spaced apart from the contact tip; as recited in claim 1.

As to claims 2 and 3, having the alignment mark protruding below or above the surface of the pad is considered an inherent component within the scope of the teaching of Farnworth et al (see col 5, ln 26-30).

As to claim 4, the alignment mark (15) at least comprises the shape of a circle as viewed from above the substrate (14) (see Figure 4).

Farnworth et al anticipates a contactor for contacting a semiconductor device (18), the contactor comprising:

a plurality of contact structures (16) disposed above the upper surface of a substrate and presenting a plurality of contact tips (17) each for contacting a terminal (13) of the semiconductor device;

means for aligning (15 shown in Figure 4) each of the plurality of contact tips with a terminal of the semiconductor device (col 5, ln 16-30); as recited in claim 6.

6. The following is a statement of reasons for the indication of allowable subject matter:

Claims 5 and 7-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The added limitation of the alignment mark disposed on the pad entirely substantially below the distal end of the contact tip as described in claim 5 has not been found.

The added limitation of having a plurality of alignment marks on at least selected ones of the plurality of microelectronic contact structures spaced apart from the plurality of contact tips as described in claim 7 has not been found.

The limitation of a plurality of alignment marks disposed on the contactor substantially below the plane wherein the distal tips of the contact tips are disposed as further detailed in claim 8 has not been found.

It is further noted that the examiner's reasons are understood to be predicated upon consideration of each of the claims as a whole, and not upon any specific elements of the claims.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kobert whose telephone number is (571) 272-1963.

The Examiner's Supervisor, Nestor R. Ramirez, can be reached at (571) 272-2034.

For an automated menu of Tech Center 2800 phone numbers call (571) 272-2800.



Russell M. Kobert
Patent Examiner
Group Art Unit 2829
December 14, 2004



DAVID ZARNEKE
PRIMARY EXAMINER
12/21/04